

A small committee was selected to canvass the members of the profession who were not present at the meeting; and, if needful, to interview the clergy and other influential residents in the neighbourhood.

### THE COMPOSITION OF SOME CANCER "REMEDIES."

A VERY slight acquaintance with the advertisements of quack medicines which are so abundant in newspapers and periodicals is enough to show that a knowledge of the causes of the diseases for which a cure is promised is in no wise necessary for the composition of either the medicine or the advertisement; in fact, it is impossible to believe that the extravagant claims and absurd statements made could be put forward by persons having a knowledge of the subject. It is no matter for surprise, therefore, that in the case of the least understood and least successfully combated of diseases many proprietary "remedies" are put forward. A considerable number of these articles have been received and the alleged claims tested at the laboratories of the Imperial Cancer Research Fund; a few of those received have been sent to us by Dr. Bashford, the Director of the laboratories, and some notes on the composition of these, as revealed by analysis, cannot fail to be of interest to members of the profession, who will probably from time to time have to treat sufferers from cancer who have been induced to buy one or other of these preparations.

As was to be expected, the articles examined have little or nothing in common. In the case of diseases for which the ordinary treatment involves the use of certain specific drugs, proprietary medicines are usually merely varying compounds of those drugs; thus, of the advertised cures for epilepsy, analyses of which we published not long ago, all but one consist essentially of bromides. But in the case of cancer, the would-be maker of a proprietary "cure" has no such accepted treatment to guide him, or restrict the free range of his fancy in selection of ingredients; it is probable that some of the "remedies" here described were inspired by improvement having apparently followed their fortuitous use in some cases, *post hoc* having been regarded as *propter hoc*; the first to be described, however, can hardly rest even on this basis.

It is a colourless liquid, containing a trace of sediment; the odour is that of alcohol, though very slightly vinous. Fractional distillation showed the presence of about 40 per cent. of alcohol; on complete evaporation, a trace (0.02 per cent.) of dry residue was left. This residue was free from any alkaloid, and its behaviour with reagents gave no indication of any other active principle; it agreed in character with the "extractive" found in spirit that has been kept in a wine-cask. After removing the alcohol, the liquid was perfectly tasteless. This "remedy" is thus very simple in nature, consisting merely of diluted and slightly impure alcohol. Its composition brings to mind the analysis published some years ago of a so-called electric fluid, or "electricity," for the cure of cancer, which was taken up by a certain well-known journalist and boomed by him in the pages of the review which he edited; many marvellous cures were ascribed to it, but examination showed that it consisted of plain water, sold at several shillings per fluid ounce. Notwithstanding the exposure, the article is at present quoted in wholesale lists, and is therefore presumably still in demand. The cost of the "medicine" we are now dealing with is of course considerably greater than the cost of plain water, but this fact will be but small consolation to the victim who derives as little benefit from the one as the other.

The next of the articles analysed was a blue fluid containing a considerable blue sediment, and smelling fairly strongly of terebene. The chief ingredient here was found to be a blue dye-stuff of the oxazine or thiazine group, much resembling methylene blue (which is the only member of these groups ordinarily used in medicine), but differing from it in solubility and in its behaviour with certain reagents. This constituted the greater part of the sediment, and a portion of the dye was also in solution. The liquid further contained a dissolved gum and a trace of terebene; these, with a little magnesium carbonate, were all the ingredients present. No trace of any alkaloid was found, and the solvent was water. The gum showed no difference from ordinary acacia gum, and was probably

added to suspend the undissolved dye stuff. Water dissolves very little terebene, and no more of the latter was present than could be dissolved by the water; it was probably employed to give an aromatic taste and smell, and the magnesia was doubtless used to subdivide the terebene in the manner commonly followed when dissolving essential oils in water. It thus appears that the essential ingredient of this medicine is the blue dye-stuff; it is possible that this has been used as methylene blue, since the articles sent out under the same name by different dye manufacturers often differ in composition; but, as already stated, it is not identical with the methylene blue usually met with. The total solids in the mixture, after shaking up the sediment, amounted to 13.2 per cent., of which the dye-stuff constituted something like one-half.

The third preparation was a brown liquid of syrupy consistence, found to consist of wood tar. It was a much purer product than ordinary Stockholm tar, and its peculiar odour indicated that it was derived, at least in great part, from the birch; no other ingredient could be found. This article came from Sphakia, Crete; the label bore no directions for its use, leaving it uncertain whether it is intended for internal or external use, but the latter appears the more probable.

The remaining articles are clearly intended for external application; the first of these consisted of a plaster mass, in the half-pound sticks in which such masses are usually supplied. Analysis showed the principal ingredient to be lead oleate, with a little stearate, and small quantities of resin and soap. These are the ingredients of the official plasters *emplastrum resinae* and *emplastrum saponis*; the proportion of soap present showed the specimen under examination to be *emplastrum resinae*.

The next preparation was an ointment of Dutch origin. It contained large quantities of ammonium alum and zinc sulphate, with a little sodium sulphate, made up into a stiff ointment with a basis consisting of beeswax, soft paraffin, oil, and resin. The quantities of the salts were approximately:

Alum	...	...	27 per cent.
Zinc sulphate	...	...	37 "
Sodium sulphate	...	...	8 "

The presence of this large proportion of mineral salts, of course, leaves very little tenacity in the ointment; particles of the white salts were easily visible to the eye, and the effect of applying the preparation must be practically the same as if the dry salts were rubbed on the skin, except that the basis would, of course, act as a lubricant in the rubbing.

The last of these preparations was another ointment: the mineral ingredients in this case, however, were in organic combination. This ointment contained copper oleate and aluminium oleate with a basis of lard and a little resin. The proportions of the active ingredients were approximately:

Copper oleate	...	...	15 per cent.
Aluminium oleate	...	...	35 "

No alkaloid or other active principle was found.

In addition to the above specimens received from Dr. Bashford, a bottle of lotion for cancer and other affections, obtained in the ordinary way through a dealer, was examined. The label commences with the statement that the lotion "cures cancerous or malignant sores"; then follows a list of other diseases, with the addition, "even cases that have been under the treatment of doctors and at infirmaries for years." Analysis showed the composition of the lotion to be substantially as follows:

Zinc sulphate	...	...	92 gr.
Carbolic acid (pure phenol)	...	...	1.2 oz.
Glycerine	...	...	1.8 fl. oz.
Cochineal solution	sufficient to give		
a deep red colour			
Water	to 3.3 fl. oz.		

This quantity is contained in a bottle costing 4s. 6d.; the directions are to add the whole contents to  $1\frac{1}{2}$  pints of water, and applied to the diseased parts for about five minutes two or three times a day.

THE late Mr. Richard Twining, of Devereux Court, Strand, left £400 to King's College Hospital, £100 each to the Dispensary in Clare Market and King's College Convalescent Home, Hemel Hempstead, and £50 each to the Brompton Cancer Hospital and the Dental Hospital, Leicester Square.